



STEEL

an LTV company

Environmental Control Division
September 25, 1981

File:

bcc: R.R. Basinski
J.M. Blundon
C.U. Broman
S.A. Green
D.H. Miller
D.F. Peck

US EPA RECORDS CENTER REGION 5



435255

John P. Lehman, Director
Hazardous and Industrial Waste Division
Office of Solid Waste (WH-565)
U.S. Environmental Protection Agency
401 M Street SW
Washington, D.C. 20460

Attn: Mr. Wm. Sproat

Dear Mr. Lehman:

In response to the telephone request made by Mr. Sproat of your office for additional information in support of the Petition for Exclusion submitted on March 3, 1981 for the sludge resulting from the treatment of mixed waste waters at the Indiana Harbor Works of Jones & Laughlin Steel Corporation, we offer the following information:

1.) At the time of our original submittal, the Indiana Harbor Works was owned by Youngstown Sheet & Tube Company. The Youngstown Sheet & Tube Company was then a part of the LTV Corporation and its facilities were being operated in conjunction with those of Jones & Laughlin Steel Corporation. Since then the two steel companies have been merged into Jones & Laughlin Steel Corporation.

2.) A block diagram of the Central Waste Treatment Plant is provided in Figure 1, with a listing of the plant process areas producing the wastes and their quantities. Figure 2 provides a more detailed process diagram of the Central Waste Treatment Plant.

3.) Figure 1 lists four types of processes contributing waste water: cold mills, pickling lines, galvanizing lines, and miscellaneous sources. Cold mill wastes consist of direct application water sprayed directly on cold rolling mills with oil for roll cooling and strip lubrication. The wastes from pickling lines consist of rinse water used to wash off residual hydrochloric acid remaining on steel strip after it leaves the wringer rolls at the exit end of continuous acid pickle tanks. The major part of the strong waste acid is disposed separately and is not one of the wastes processed in the Central Waste Treatment Plant. However, a portion of the waste hydrochloric acid, amounting to 15,000 gal./week is employed as a coagulant in the treatment process. The wastes from the galvanizing lines consist of non-contact cooling water and floor drains.

YOUNGSTOWN SHEET & TUBE COMPANY

Indiana Harbor Works Central Treatment Plant Sludge ✓

Sample Date	EP Extract - mg/l										
	As	Ba	Cd	CN	Cr-t	Cr ⁺⁶	Ni	Pb	Hg	Se	Ag
August 1, 1980 ¹⁾	0.001	<0.10	0.02		0.10		0.22	<0.40	<0.005	<0.002	0.03
September 16-19, 1980 ²⁾	<0.001	<0.10	<0.01		0.05	<0.01	0.51	0.08	<0.0005		0.02
January 5, 1981 ³⁾			0.01	<0.005	0.06	<0.01	0.64				
January 6, 1981 ³⁾			0.01	<0.005	0.07	<0.01	0.66				
January 7, 1981 ³⁾			0.01	0.030	0.08	<0.01	0.63				
January 8, 1981 ³⁾			0.01	0.015	0.15	<0.01	0.65				

Sludge-Chemical Analyses - mg/kg ⁴⁾				
	Cr	Cd	Ni	CN
September 16-19, 1980 ²⁾	3700	2.0	79	8.2
January 5, 1981 ³⁾	2200	2.0	100	6.0
January 6, 1981 ³⁾	2230	1.0	100	8.0
January 7, 1981 ³⁾	6890	2.0	94	25
January 8, 1981 ³⁾	7840	1.0	95	51

1) grab

2) four day composite

3) 24-hour composite

4) metals on dry basis; CN on wet basis

3/3/81